SANTA CRUZ BIOTECHNOLOGY, INC.

GPR155 (T-11): sc-137510

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

G protein-coupled receptors (GPRs), also known as seven transmembrane receptors, heptahelical receptors or 7TM receptors, comprise a superfamily of proteins that play a role in many different stimulus-response pathways. G protein coupled receptors translate extracellular signals into intracellular signals (G protein activation) and they respond to a variety of signaling molecules, such as hormones and neurotransmitters. GPR155 (G protein-coupled receptor 155), also known as DEP.7, PGR22 or DEPDC3, is an 870 amino acid multi-pass membrane protein that contains one DEP domain. The gene encoding GPR155 maps to human chromosome 2, which consists of 237 million bases, encodes over 1,400 genes and makes up approximately 8% of the human genome. A number of genetic diseases are linked to genes on chromosome 2 including Harlequin icthyosis, sitosterolemia and Alström syndrome.

REFERENCES

1. Patel, S.B., et al. 1998. Mapping a gene involved in regulating dietary cholesterol absorption. The sitosterolemia locus is found at chromosome 2p21. J. Clin. Invest. 102: 1041-1044.
2. Shulenin, S., et al. 2001. An ATP-binding cassette gene (ABCG5) from the ABCG (White) gene subfamily maps to human chromosome 2p21 in the region of the Sitosterolemia locus. Cytogenet. Cell Genet. 92: 204-208.
3. Menzaghi, F., et al. 2002. Constitutively activated G protein-coupled receptors: a novel approach to CNS drug discovery. Curr. Drug Targets CNS Neurol. Disord. 1: 105-121.
4. Szekeres, P.G. 2002. Functional assays for identifying ligands at orphan G protein-coupled receptors. Recept. Channels 8: 297-308.
5. Vassilatis, D.K., et al. 2003. The G protein-coupled receptor repertoires of human and mouse. Proc. Natl. Acad. Sci. USA 100: 4903-4908.
6. Kelsell, D.P., et al. 2005. Mutations in ABCA12 underlie the severe congenital skin disease harlequin ichthyosis. Am. J. Hum. Genet. 76: 794-803.
7. Wang, Y., et al. 2006. Tyrosine phosphorylated Par3 regulates epithelial tight junction assembly promoted by EGFR signaling. EMBO J. 25: 5058-5070.

CHROMOSOMAL LOCATION

Genetic locus: GPR155 (human) mapping to 2q31.1; Gpr155 (mouse) mapping to 2 C3.

SOURCE

GPR155 (T-11) is an affinity purified rabbit polyclonal antibody raised against a peptide mapping within an internal region of GPR155 of human origin.

STORAGE

Store at 4° C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.

PRODUCT

Each vial contains 100 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-137510 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

GPR155 (T-11) is recommended for detection of GPR155 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, dilution range 1:50-1:500), immunofluorescence (starting dilution 1:25, dilution range 1:25-1:250) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000); non cross-reactive with other GPR family members.

GPR155 (T-11) is also recommended for detection of GPR155 in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for GPR155 siRNA (h): sc-94336, GPR155 siRNA (m): sc-145712, GPR155 shRNA Plasmid (h): sc-94336-SH, GPR155 shRNA Plasmid (m): sc-145712-SH, GPR155 shRNA (h) Lentiviral Particles: sc-94336-V and GPR155 shRNA (m) Lentiviral Particles: sc-145712-V.

Molecular Weight of GPR155: 97 kDa.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunofluorescence: use goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

RESEARCH USE

For research use only, not for use in diagnostic procedures.